

Appln. No. 10/047,032
Amdt. dated December 7, 2005
Reply to Office Action dated October 20, 2005

IN THE CLAIMS:

Please amend claims 1-20 as follows. The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended). A transmission system $[(10)]$ comprising

a transmitter $[(12)]$ for transmitting an input signal to a receiver $[(14)]$ via a transmission channel $[(16)]$, the
5 transmitter $[(12)]$ comprising a splitter $[(20)]$ for splitting up a single input signal on a single input line into at least first and second frequency band signals, the transmitter $[(12)]$ further comprising a first encoder $[(22)]$ for encoding the first frequency band signal into a first encoded frequency band
10 signal and a second encoder $[(24)]$ for encoding the second frequency band signal into a second encoded frequency band signal, the transmitter $[(12)]$ being arranged for transmitting the first and second encoded frequency band signals via the transmission channel $[(16)]$ to the receiver $[(14)]$,
15 the receiver $[(14)]$ comprising a first decoder $[(26)]$

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for decoding the first encoded frequency band signal into a first
decoded frequency band signal and a second decoder $[(28)]$ for
decoding the second encoded frequency band signal into a second
decoded frequency band signal, the receiver $[(14)]$ further
20 comprising a combiner $[(30)]$ for combining the first and second
decoded frequency band signals into $[(an)]$ a single output
signal, the receiver $[(14)]$ further comprising reconstruction
means $[(48)]$ for reconstructing the second decoded frequency
band signal when the second decoded frequency band signal is not
25 available,

characterised in that the reconstruction means $[(48)]$ are
arranged for reconstructing the second decoded frequency band
signal from the first decoded frequency band signal.

Claim 2 (Currently Amended). The transmission system
 $[(10)]$ according to claim 1, characterised in that the
reconstruction means $[(48)]$ are arranged for reconstructing the
second decoded frequency band signal from the first decoded
5 frequency band signal by extending a bandwidth of the first
decoded frequency band signal.

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Claim 3 (Currently Amended). The transmission system
[[10]] according to claim 1, characterised in that the
reconstruction means [[48]] are arranged for reconstructing a
present frame of the second decoded frequency band signal from a
5 present frame of the first decoded frequency band signal and from
a previous frame of the second decoded frequency band signal.

Claim 4 (Currently Amended). The transmission system
[[10]] according to claim 1, characterised in that the first
frequency band signal and the first encoded frequency band signal
and the first decoded frequency band signal are signals having a
5 low frequency band and in that the second frequency band signal
and the second encoded frequency band signal and the second
decoded frequency band signal are signals having a high frequency
band.

Claim 5 (Currently Amended). A receiver [[14]] for
receiving, via a transmission channel [[16]], first and second
encoded frequency band signals derived from a single input signal
from a transmitter [[12]], the receiver [[14]] comprising
5 a first decoder [[26]] for decoding the first encoded
frequency band signal into a first decoded frequency band signal,

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[[and]]

a second decoder [(28)] for decoding the second encoded frequency band signal into a second decoded frequency band
10 signal, the receiver [(14)] further comprising
a combiner [(30)] for combining the first and second decoded frequency band signals into [[an]] a single output signal, the receiver [(14)] further comprising
reconstruction means [(48)] for reconstructing the second
15 decoded frequency band signal when the second decoded frequency band signal is not available, characterised in that the reconstruction means [(48)] are arranged for reconstructing the second decoded frequency band signal from the first decoded frequency band signal.

Claim 6 (Currently Amended). The receiver [(14)] according to claim 5, characterised in that the reconstruction means [(48)] are arranged for reconstructing the second decoded frequency band signal from the first decoded frequency band
5 signal by extending a bandwidth of the first decoded frequency band signal.

Claim 7 (Currently Amended). The receiver [(14)]

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according to claim 5, characterised in that the reconstruction means [(48)] are arranged for reconstructing a present frame of the second decoded frequency band signal from a present frame of the first decoded frequency band signal and from a previous frame of the second decoded frequency band signal.

Claim 8 (Currently Amended). The receiver [(14)] according to claim 5, characterised in that the first encoded frequency band signal and the first decoded frequency band signal are signals having a low frequency band and in that the second encoded frequency band signal and the second decoded frequency band signal are signals having a high frequency band.

Claim 9 (Currently Amended). A method of transmitting a single input signal via a transmission channel [(16)], the method comprising:

- splitting up the single input signal into at least first and second frequency band signals,
- encoding the first frequency band signal into a first encoded frequency band signal and encoding the second frequency band signal into a second encoded frequency band signal,

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- 10 • transmitting the first and second encoded frequency
 band signals via the transmission channel [[[16]]],
- decoding the first encoded frequency band signal into a
 first decoded frequency band signal and decoding the
 second encoded frequency band signal into a second
15 decoded frequency band signal,
- combining the first and second decoded frequency band
 signals into [[an]] a single output signal,
- reconstructing the second decoded frequency band signal
 when the second decoded frequency band signal is not
5 available, characterised in that the second decoded
 frequency band signal is reconstructed from the first
 decoded frequency band signal.

Claim 10 (Currently Amended). The method of transmitting an
input signal via a transmission channel [[[16]]] according to
claim 9, characterised in that the second decoded frequency band
signal is reconstructed from the first decoded frequency band
5 signal by extending a bandwidth of the first decoded frequency
 band signal.

Claim 11 (Currently Amended). The method of transmitting an

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input signal via a transmission channel $[(16)]$ according to
claim 9, characterised in that a present frame of the second
decoded frequency band signal is reconstructed from a present
5 frame of the first decoded frequency band signal and from a
previous frame of the second decoded frequency band signal.

Claim 12 (Currently Amended). The method of transmitting an
input signal via a transmission channel $[(16)]$ according to
claim 9, characterised in that the first frequency band signal
and the first encoded frequency band signal and the first decoded
5 frequency band signal are signals having a low frequency band and
in that the second frequency band signal and the second encoded
frequency band signal and the second decoded frequency band
signal are signals having a high frequency band.

Claim 13 (Currently Amended). A method of receiving, via a
transmission channel $[(16)]$, first and second encoded frequency
band signals derived from a single input signal, the method
comprising:

- 5 • decoding the first encoded frequency band signal into a
first decoded frequency band signal and decoding the
second encoded frequency band signal into a second

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decoded frequency band signal,

- 10 • combining the first and second decoded frequency band signals into [[an]] a single output signal,
- reconstructing the second decoded frequency band signal when the second decoded frequency band signal is not available, characterised in that the second decoded frequency band signal is reconstructed from the first
15 decoded frequency band signal.

Claim 14 (Currently Amended). The method of receiving, via a transmission channel [[(16)]], first and second encoded frequency band signals according to claim 13, characterised in that the second decoded frequency band signal is reconstructed
5 from the first decoded frequency band signal by extending a bandwidth of the first decoded frequency band signal.

Claim 15 (Currently Amended). The method of receiving, via a transmission channel [[(16)]], first and second encoded frequency band signals according to claim 13, characterised in that a present frame of the second decoded frequency band signal
5 is reconstructed from a present frame of the first decoded frequency band signal and from a previous frame of the second

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decoded frequency band signal.

Claim 16 (Currently Amended). The method of receiving, via a transmission channel $[(16)]$, first and second encoded frequency band signals according to claim 13, characterised in that the first encoded frequency band signal and the first
5 decoded frequency band signal are signals having a low frequency band and in that the second encoded frequency band signal and the second decoded frequency band signal are signals having a high frequency band.

Claim 17 (Currently Amended). A speech decoder $[(60)]$ for decoding first and second encoded frequency band speech signals derived from a single input speech signal, the speech decoder $[(60)]$ comprising

5 a first decoder $[(26)]$ for decoding the first encoded frequency band speech signal into a first decoded frequency band speech signal, $[[\text{and}]]$

a second decoder $[(28)]$ for decoding the second encoded frequency band speech signal into a second decoded frequency band
10 speech signal, the speech decoder $[(60)]$ further comprising
a combiner $[(30)]$ for combining the first and second

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decoded frequency band speech signals into [[an]] a single output
signal, the speech decoder [[60]] further comprising

reconstruction means [[48]] for reconstructing the second
15 decoded frequency band speech signal when the second decoded
frequency band signal is not available, characterised in that
reconstruction means [[48]] are arranged for reconstructing the
second decoded frequency band speech signal from the first
decoded frequency band speech signal.

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Claim 18 (Currently Amended). The speech decoder [[60]]
according to claim 17, characterised in that the reconstruction
means [[48]] are arranged for reconstructing the second decoded
frequency band speech signal from the first decoded frequency
5 band speech signal by extending a bandwidth of the first decoded
frequency band speech signal.

Claim 19 (Currently Amended). The speech decoder [[60]]
according to claim 17, characterised in that the reconstruction
means [[48]] are arranged for reconstructing a present frame of
the second decoded frequency band speech signal from a present
5 frame of the first decoded frequency band speech signal and from
a previous frame of the second decoded frequency band speech

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signal.

Claim 20 (Currently Amended). The speech decoder [[[60)]]
10 according to claim 17, characterised in that the first encoded
frequency band speech signal and the first decoded frequency band
speech signal are signals having a low frequency band and in that
the second encoded frequency band speech signal and the second
decoded frequency band speech signal are signals having a high
15 frequency band.